DOCUMENT RESUME

ED 326 827 CG 023 038

AUTHOR Basow, Susan; Kobrynowicz, Diane
TITLE What Is She Eating? The Effects of Meal Size on Impressions of a Female Eater.
PUB DATE Aug 90
NOTE 21p.; Paper presented at the Annual Meeting of the American Psychological Association (98th, Boston, MA, August 10-14, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adolescents; College Students; *Eating Habits; *Females; *Food; Higher Education; *Personality Traits; *Physical Attractiveness; *Social Behavior; Social Desirability; Young Adults

ABSTRACT

Although there has been much research on the link between femininity and female appearance, body image, and eating disorders, there has been little research with respect to the behavior of eating itself. Recent literature has indicated that an individual's perception of a women can be affected by the amount of food that the woman is perceived as eating. This study explored the relationship between meal size and perceptions of a woman by asking 97 college students to give their impressions of a female student who was seen via a television monitor eating one of four meals. Meals were varied in terms of both amount and gender connotations. Four questionnaires were used in the study: a questionnaire focusing participants' attention on the meal without revealing the meal's importance in the study; an adaptation of the Bem Sex Role Inventory designed to measure the viewer's impression of the woman's sex-typed characteristics; a Social Appeal Scale used to evaluate how much the participants liked the target woman; and a five-point Likert-type scale measuring aspects of the woman's attractiveness. The results showed that meal size significantly affected ratings of the woman's social appeal, physical attractiveness, and expressive traits, but not ratings of her instrumental traits. Thus, eating lightly appears to be socially advantageous for a woman. (Author/NB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Paper presented at the meeting of the
American Psychological Association,
Boston, August 10-14, 1990

ED326827

What Is She Eating? The Effects of Meal Size On Impressions of a Female Eater

Susan Basow

Diane Kobrynowicz

Lafayette College

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Susan A. Basow

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CG023038

Running Head: What is She Eating?

Correspondence should be sent to Dr. Susan Basow, Psychology Dept., Lafayette College, Easton, PA 18042.

Abstract

Recent literature has indicated that an individual's perception of a woman can be affected by the amount of food that the woman is perceived as eating. Ninety-seven male and female college students watched a video of a female student who was eating one of four meals which varied in size and gender connotations. Results showed that meal size significantly affected ratings of the woman's social appeal, physical attractiveness, and expressive traits, but not ratings of her instrumental traits. Thus, eating lightly appears to be socially advantageous for a woman.

What is She Eating? The Effects of Meal Size On Others' Perceptions of a Female Eater

A focus on attractiveness for women in the United States involves an emphasis on an ideal body shape. Our society equates thinness with female beauty and holds severe negative views towards obese women (Rodin, Silberstein & Striegel-Moore, 1984). Our culture's emphasis on thinness may have resulted in the rise in eating disorders in women over the last fifteen years. Current estimates of college women with eating disorders range from 4% to 15% (Basow & Schneck, 1983; Crandall, 1988; Halmi, Falk & Schwartz, 1981). Researchers document that women with eating disorders are obsessed with physical attractiveness and display an exaggerated attempt to fulfill the "feminine" ideal (Boskind-White & White, 1983).

Although there has been much research on the link between femininity and female appearance, body image, and eating disorders, there has been little research with respect to the behavior of eating itself. Mori, Chaiken and Pliner (1987) hypothesized that women may eat less when attempting to appear feminine. They gave male and female subjects snacks as the subjects participated in a get-acquainted study with either a male or female confederate whose desirability was manipulated. Female subjects ate less with male partners than with female partners, especially when the male partner was desirable rather than undesirable.

Another study (Pliner & Chaiken, 1987) examined subjects' eating behavior in more detail. In one experiment, subjects and confederate partners were asked to eat until comfortably full before jointly performing a task. Females, but not males, ate less with an opposite-sex partner they rated as desirable than in any other condition. Furthermore, the less a female subject ate, the higher her own and her partners' ratings of her femininity, although amount eaten was unrelated to either one's rating of her masculinity. For male subjects, amount eaten did not affect self or confederate rating of his masculinity or femininity. In a second experiment, both male and female subjects indicated that eating less portrays greater femininity. Pliner and Chaiken (1987) surmise that an eating situation with an opposite sex partner intensifies the importance of appearing in a manner consistent with one's gender for women but not for men. Of all the social motives studied, appearing feminine is best served by eating lightly.

If women eat less in hopes of conveying a more feminine personality, is it effective? Chaiken and Pliner (1987) examined the effect of varying the amount of food that a male or female target was portrayed as eating using a written food diary of the last two meals. They concluded that people perceive eating lightly compared to eating heavily differently depending on whether the eater is female or male. The amount eaten is noticed and used in judging a woman's femininity-expressive traits and

masculinity-instrumental traits but appears to be irrelevant in judging those same traits in males. The female target who ate a small meal was seen as more expressive (emotional, kind, understanding of others), more concerned about her appearance, and better looking than the female target who ate a large meal. There is some indication, then, that social pressures may limit women's eating.

The present experiment further explored the relationship between meal size and perceptions of a woman by asking subjects' impressions of a female target who was seen via a television monitor eating a meal. Male targets were not used since meal size does not appear to affect people's impressions of males. Meals were varied in terms of both amount and gender connotations. In this experiment, it was hypothesized that a woman eating a small "feminine" meal (as determined by a pilot study) would be rated higher on femininity-expressive traits, attractiveness, and social appeal, and lower on masculinity-instrumental traits compared to a woman eating a large "masculine" meal.

Method

Participants

Participants were 97 college student volunteers (59 females, 38 males) from a private liberal arts college in the Northeast. Most were first or second year students who received course credit for their participation.

Materials

Video. Four meals were chosen based on the results of a pilot study in which 33 college students rated nine meals on a 7-point Likert scale from 1="very masculine" to 7="very feminine": meal 1--a small "feminine" meal consisting of a small tossed salad with lite Viva italian dressing and a glass of seltzer (M = 6.45, SD = 0.67); meal 2--a large "feminine" meal consisting of a large Greek salad, with lettuce, feta cheese, onions, black olives, pepper, oregano, and oil and vinegar, and a diet Coke (M = 4.73 SD = 1.10); meal 3--a small "masculine" meal consisting of a half of a meatball parmesan sandwich on a hoagie roll, 6 mozzarella sticks and a large Coke (M = 2.94 SD = 0.83); and meal 4--a large "masculine" meal consisting of a large meatball parmesan sandwich on a hoagie roll, with 6 mozzarella sticks, large fries, a piece of apple pie, and a large Coke (M = 1.61 SD = 0.66). (A piece of chocolate cake was substituted for a piece of apple pie during taping because apple pie was unavailable at time of food purchase.) Scheffé analyses demonstrate that these four meals differ significantly from one another. A one-way within subjects ANOVA by gender demonstrated a gender difference on ratings of meal 1 ($F(1, 31) = 6.20$, $p < .01$) and meal 4 ($F(1, 31) = 6.91$, $p < .01$). Females tended to rate more extremely than males, but both females and males rated meal 1 as most "feminine", meal 2 moderately "feminine", meal 3 as moderately "masculine", and meal 4 as most "masculine."

A moderately attractive average weight female college student was hired to perform in the video. The lunch was scripted, and the actor was trained to keep gestures and expression constant in all four conditions. Each of the four versions of the lunch scenario consisted of three scenes showing the young woman having lunch alone eating one of the four meals described above: first, she read the menu and ordered; then she started to eat; finally she finished her meal. The length of each scene was identical in all four conditions with fadeouts between scenes. Each of the final tapes was five minutes in length.

In a pilot study, ten students rated all four tapes shown in counterbalanced order to verify that each tape is similar to the others in all aspects except for the meal. Within subject ANOVAs by meal revealed no significant differences among the students' ratings for each of the four tapes on facial expression, speed of eating, number of hand gestures, or rate of movement. A within subject ANOVA showed a significant difference in amount of food eaten ($F(3, 24) = 48.88$, $p < .01$): tape 4 was perceived correctly as the most food, significantly more than in the other three tapes; tape 1 was perceived as containing the least food, significantly less than the other three tapes; and tapes 2 and 3 were perceived as containing relatively similar amounts of food. A significant difference was found between tapes of meals 4 and 2 on size of bites ($F(3, 24) = 5.55$ $p < .01$), and between tapes 4

and 1 on size of sips ($F(3, 24) = 4.13$, $p < .05$) and amount of food left on plate after meal ($F(3,24) = 8.65$, $p < .01$). Although bite size was controlled as much as possible, the different food composition of the meals made some difference in bite size unavoidable. The difference in sip size is most likely an effect of the meal since the amount of soda drank by the actor was measured and equivalent across tapes and sips were timed. The difference in amount of food left on plate after meal is also acceptable since the small salad was served in a bowl and the left-over food could not be seen.

Questionnaires. There were four questionnaires used in the actual study. The first questionnaire focused participants' attention on the meal without revealing the meal's importance in the study. This was done by asking about a number of characteristics of the videotape (e.g., hair color of target, table cloth color, etc.) in addition to asking which of the four meals the woman ate.

The second questionnaire measured the viewer's impression of the woman's sex-typed characteristics. The Bem Sex Role Inventory (Bem, 1974) was adapted for this purpose by re-writing the instructions so that the students would rate the traits as being characteristic of the target. Two scores were obtained: the woman's femininity-expressive traits and her masculinity-instrumental traits.

A Social Appeal Scale containing five questions developed by

the authors was used to evaluate how much the participants liked the target woman. Participants indicated the extent which they wanted to become friends with the target woman, to get to know her better, to hang out with her, to room with her (for women) or date her (for men), and how much they liked her. Because the five questions tapping social appeal were significantly intercorrelated (from r = .37 to r = .65) a composite score was obtained. This measure demonstrates adequate internal consistency for this sample (Cronbach's alpha = 0.807).

A fourth scale measured aspects of the woman's attractiveness. Using a five point Likert type scale, participants rated the target's face, hair, body, and general attractiveness, her concern about her appearance, her perceived weight and her eating habits. This last question served as another manipulation check to determine if participants actually noticed the amount of food the target woman ate. The four questions measuring physical attractiveness also were significantly intercorrelated (from r = .32 to r = .72) so a composite score was obtained. This measure demonstrates adequate internal consistency for this sample (Cronbach's alpha = 0.804).

Procedure

Participants signed up for one of thirteen experimental sessions which were scheduled in the evening. Upon arrival, they were greeted by a female experimenter and a male assistant, directed to individual cubicles and addressed by the experimenter

via an intercom system. Participants were told that they were being asked to partake in a person-perception experiment in order to examine how people form their impressions of others, particularly strangers, and that they would be viewing a short videotape. They were asked to pretend that they are in a restaurant and notice a woman having lunch at the next table, with the mealtime compressed.

As soon as participants received directions and general information, they individually viewed one of the four videotapes on a TV monitor in the experimental cubicle. Afterwards, the experimenter and the lab assistant distributed a packet of questionnaires to each participant. First, participants filled out the tape characteristics questionnaire. Then, they were asked to describe their impressions about the woman they observed by completing the BSRI, the social appeal scale, and questions about the target's appearance. These three scales were presented in complete counter-balanced order. Participants were debriefed by a letter through campus mail after all data were collected.

Results

Manipulation checks. Responses to the multiple choice question "What was she eating?" were analyzed to ensure that when participants viewed the actor eating a certain meal that they actually perceived her as eating that meal. As shown in Table 1, groups significantly differed with respect to the meals they saw but not completely in the predicted direction ($\chi 2(9) = 164.216$, p

<.01, see Table 1). Only three male and three females who viewed the woman eating a small hoagie actually responded that she ate a small hoagie, while six males and eleven females thought she ate a large hoagie. Three males and four females who saw the actor eat a large hoagie thought she was eating a small one. Therefore, all statistical analyses used both the actual meal and the perceived meal as independent variables.

Insert Table 1 about here

A second manipulation check was the response to the multiple choice question "About this person's eating habits, she eats: very little, less than average, average, more than average, a great deal." Significant differences were found with a two-way ANOVA (Gender X Meal) for actual meal ($F(3,89) = 27.87$, $p < .01$) and for perceived meal ($F(3,89) = 25.84$, $p < .01$). For actual meals, the actor's eating habits were found to differ significantly for all meals except between the small hoagie and the large hoagie. (See Table 2 for means for all dependent measures). For perceived meals, the actor's eating habits were found to differ significantly on all meals except between the small hoagie and the large hoagie and between the large salad and the small hoagie.

Insert table 2 about here.

Social Appeal. Two 2-way ANOVAs (Gender X Actual Meal and Gender X Perceived Meal) were performed on the composite Social Appeal score (scores could range from 5 to 25). There were no significant main or interaction effects for either analysis. A planned comparison revealed that the eater of actual meal 1 (small salad) was rated as having significantly more social appeal than the eater of the other meals ($F(1,92) = 7.47$, $p < .01$). For perceived meals, a planned comparison revealed that the eater of the large hoagie was rated as having significantly less social appeal than the eater of the other meals ($F(1,92) = 5.52$, $p < .05$).

Physical Attractiveness. Two 2-way ANOVAs (Gender X Actual Meal and Gender X Perceived Meal) were performed on the composite physical attractiveness score which could range from 4 to 20. There were no significant interaction effects for either analysis. A planned comparison revealed that the eater of perceived meal 4 (large hoagie) was rated as the least physically attractive compared to the eater of the other meals ($F(1,93) = 4.51$, $p < .05$).

On the single question regarding concern for physical appearance, males rated the eater's concern for her physical appearance as higher that did females (male $M = 3.42$, $SD = 1.03$; female $M = 2.80$, $SD = 1.01$; $F(1,89) = 9.98$ $p < .01$).

Responses to the question "About this person's weight, she

appears: very thin, somewhat thin, average, somewhat overweight, very overweight" revealed no significant differences using actual meal, but a main effect using perceived meal size ($F(3,89) = 2.77$, $p < .05$). A planned comparison revealed that the eater of the large hoagie was rated as weighing significantly more than the eater of the other meals ($F(1,93) = 4.09$, $p < .05$). The eater of the small salad was not rated as weighing significantly less than the eater of the other meals.

Personality Traits. Two 2-way ANOVAs (Gender X Actual Meal and Gender X Perceived Meal) were performed on the subjects' perceptions of the eater's masculinity-instrumental traits and femininity-expressive traits. No significant main or interaction effects were found. For actual meal, a planned comparison revealed that the eater of the small salad was rated as significantly more feminine than the eater of the other meals ($F(1,92) = 4.19$, $p < .05$).

Discussion

As predicted, participants rated the female eater of the small feminine meal as more socially appealing and more feminine than the eater of the other meals. They also rated the eater of the large masculine meal as less socially appealing, less physically attractive, and heavier than the eater of the other meals. However, the eater of the small feminine meal was rated no differently on physical attractiveness or weight compared to the eater of the other meals, nor was the eater of the large

masculine meal rated as less feminine, as predicted. Thus some, though not all, of the experimental hypotheses were supported.

The effects of meal size appeared to be strongest on social appeal. On this dependent measure, the eater of the small feminine meal was rated higher, and the eater of the large masculine meal was rated lower, when compared with the other meals, which supports the hypotheses of Pliner and Chaiken (1987, Mori et al., 1987) that women eat small meals in order to appear socially desirable. Their studies, however, put the female eater in a social context with a male. In this experiment, the female eater was lunching alone. Perhaps if she had been with another person, particularly a male, she would have been seen even more negatively for eating a large meal and more positively for eating a small one.

Pliner and Chaiken (1987, Chaiken & Pliner, 1987) suggest that the increased social desirability of the woman who eats small meals is due to the effect of meal size on her perceived femininity. Indeed, in the present study, the eater of the small meal was seen as most feminine. Furthermore, perceived femininity (expressive traits) was significantly correlated with social appeal in general such that the more "feminine" the woman appeared, the more appealing she was found (r = .41, p <.01). People are expected to exhibit gender-linked traits, and when they do, they are liked better for it (Basow, 1986). "Eating lightly" for a woman does appear to increase her perceived

femininity and thereby her social desirability. These results extend those of Chaiken and Pliner (1987) since those researchers used 25 bipolar traits while the present study used the sum score of 20 stereotypic feminine traits. However, unlike their study, meal size did not affect ratings of perceived masculinity (instrumental traits), perhaps because the constellation of instrumental traits used in this study was independent of the femininity traits.

These results of enhanced social appeal of a woman who eats "lightly" combined with the more negative ratings (lower social appeal, lower physical attractiveness, higher weight estimations) of the same woman when she is perceived as eating "heavily" help explain why women may manipulate their eating behavior in the presence of others, especially others they want to impress (Mori et al., 1987; Pliner & Chaiken, 1987). The fact that these results are found when a woman is known to be eating alone strengthens the results. It seems clear how some women may develop eating disorders if they so try to control not only their weight but their eating behavior in the presence of others.

Is a large hoagie negative and a small salad positive because of size or gender connotations? This study does not provide a complete answer to this question since size and gender-typings of meals are partially confounded (the average size of both "feminine" meals is smaller than the average size of both "masculine" meals). However, in the pilot study, meal 2 (the

large salad) which was rated as slightly "feminine" was seen as containing relatively similar amounts of food as meal 3 (the small hoagie) which was rated as slightly "masculine." Thus, comparing social impression ratings of the eater of these two meals provide some indication of whether sex-typing or size of meal is more important. Since none of the analyses found any difference between meals 2 and 3 (using both actual and perceived meals), we can tentatively conclude that size of meal appears to be more important than sex-typing of meal in the formation of social impressions.

A number of factors in this study would have worked to reduce the effects of the independent variable in addition to the social context of eating alone. First of all, not all viewers perceived the meal they saw accurately, especially with respect to the hoagies. Secondly, female participants outnumbered male participants 3:2 thereby over-weighting women's perceptions. In a related vein, although participants were not asked their ethnicity, the experimenters reported that about one fourth of the men appeared to be foreign students. The presence of such students may have diluted the effects of the independent variables.

A third factor that might have reduced the impact of meal size is meal length. In real life meal size is confounded with eating time, number of bites, and manner of eating. These natural covariates may contribute to a differential impression of

a large-meal eater.

Fourthly, the "averageness" of the female eater also may have minimized the effects of the experimental manipulations. Such a female may not tap into a viewer's schema connecting meal size and social desirability to as great an extent as a more extreme female target (in terms of weight or attractiveness).

Despite these constraints which likely minimized the effects of meal size, the current experiment generally supports the results of Chaiken and Pliner (1987). "Eating lightly" for a woman does appear to be socially advantageous. Future research could examine the effects of other personal and situational variables (eg., target woman's attractiveness and weight, familiarity of eating partner) on this relationship between meal size and people's perceptions of a woman. A more naturalistic setting also would be desirable.

Understanding the effects of meal size on impressions of women is important in order to increase our understanding and treatment of eating disorders. The apparent social pressure on young women who are trying to appear socially desirable to restrict their food intake will have to be taken into account in any preventative program. Clearly, more education and exposure of the pernicious nature of this stereotype is needed.

References

Basow, S. A. (1986). Gender Stereotypes: Traditions and Alternatives. Monterey, CA: Brooks/Cole.

Basow, S. A., & Schneck, R. (1983). Eating disorders among college women. (ERIC Document Reproduction Service No. ED 243 049).

Boskind-White, M., & White, W. C. (1983). Bulimarexia: The binge/purge cycle. New York: Norton.

Chaiken, S., & Pliner, P. (1987). Women, but not men, are what they eat: The effect of meal size and gender on perceived femininity and masculinity. Personality and Social Psychology Bulletin, 13, 166-176.

Crandall, D. S. (1988). Social contagion of binge eating. Journal of Personality and Social Psychology, 55, 588-598.

Halmi, K. A., Falk, J. R., & Schwartz, E. (1981). Binge-eating and vomiting: A survey of a college population. Psychological Medicine, 11, 697-706.

Mori, D., Chaiken, S. & Pliner, P. (1987). "Eating lightly" and the self preservation of femininity. Journal of Personality and Social Psychology, 53, 693-702.

Pliner, P. & Chaiken, S., (1987). Eating, social motives, and self-presentation in men and women. Unpublished manuscript, University of Toronto.

Rodin, J., Silberstein, L., & Striegel-Moore, R. (1984). Women and weight: A normative discontent. Nebraska Symposium on Motivation, 267-307.

Table 1

Frequency of Participants' Perceptions of Meal Compared to Actual Meal (N = 97).

	Perceived Meal				
	Small Salad	Large Salad	Small Hoagie	Large Hoagie	Total
Actual Meal					
Small salad	20	2	0	0	22
Large salad	1	23	0	0	24
Small hoagie	0	0	6	17	23
Large hoagie	0	0	7	20	27
Total	21	25	13	37	

Table 2

Mean Ratings (and SDs) on Dependent Variables for Actual Meal and Perceived Meal (N = 97).

	Actual Meal			
	Small Salad	Large Salad	Small Hoagie	Large Hoagie
Eating Habits	1.91 (0.67)	2.71 (0.75)	3.30 (0.63)	3.70 (0.78)
Social Appeal	15.17 (3.34)	13.53 (2.66)	13.57 (2.25)	13.22 (2.29)
Phys. Attract.	11.78 (2.49)	11.83 (2.12)	10.96 (1.61)	11.11 (2.08)
Weight	3.57 (0.73)	3.33 (1.17)	3.48 (0.73)	3.44 (0.58)
Concern about appearance	3.04 (1.02)	3.33 (0.48)	3.09 (1.00)	2.74 (1.02)
Masculinity	3.61 (0.67)	3.27 (1.22)	3.66 (0.92)	3.29 (1.10)
Femininity	4.75 (0.86)	4.34 (0.97)	4.39 (0.56)	4.37 (0.74)
	Perceived Meal			
Eating Habits	1.95 (0.74)	2.62 (0.75)	3.15 (0.69)	3.65 (0.72)
Social Appeal	14.52 (3.03)	14.20 (3.21)	14.38 (1.61)	13.03 (2.36)
Phys. Attract.	11.29 (2.35)	12.23 (2.18)	11.69 (1.65)	10.81 (1.90)
Weight	3.57 (0.75)	3.35 (0.49)	3.08 (0.49)	3.59 (0.64)
Concern about appearance	3.10 (1.09)	3.27 (1.12)	2.77 (1.09)	2.95 (1.00)
Masculinity	3.50 (1.07)	3.39 (1.29)	3.34 (0.98)	3.47 (1.05)
Femininity	4.74 (0.88)	4.38 (0.95)	4.52 (0.49)	4.33 (0.71)